USGS 104g Research Projects

The U.S. Geological Survey in cooperation with the South Dakota Water Resources Institute requests proposals under Section 104(g) of the Water Resources Research Act of 1984. This competitive grant program focuses on: “water problems and issues of a regional or interstate nature beyond those of concern only to a single State and which relate to specific program priorities identified jointly by the Secretary (of the Interior) and the (water resources research) institutes.”

Maximum Grant Size and Duration of Project:

- Applicants shall not request total federal funds exceeding $250,000 per project. Each applicant must match each Federal dollar provided to support each proposed project with not less than one dollar from non-federal sources.
- Proposed projects may be of 1 to 3 years in duration, with discrete 12-month budget periods.
- Proposals are due February 20, 2014

Note, that the research priorities for FY 2014 are different from those of previous years. For more information about the grant opportunity, visit http://www.sdstate.edu/abe/wri/research/104g.cfm

USGS 104b Research Projects Top 3 Pre-Proposals Selected

The South Dakota Water Resources Institute is excited to announce that the following 3 pre-proposals have been selected to submit full proposals for the SDWRI USGS 104b research grant program. The pre-proposals have been reviewed by six reviewers representing the South Dakota DENR, South Dakota NRCS, South Dakota USGS, South Dakota Association of Conservation Districts, East Dakota Water Development District and RESPEC Consulting. The selection of the pre-proposals that are invited to submit a full proposal is solely based on the recommendations of this six-member review panel.

- Source Water Implications Associated with the Current Black Hills Mountain Pine beetle Infestation. Lead PI: Dr. J. Stone, South Dakota School of Mines and Technology.
2013 Eastern South Dakota Water Conference
Abstracts & Presentations available at:
http://www.sdstate.edu/abe/wri/activities/ESDWC/2013-presentations.cfm

NDSU student poster competition attendees

Congratulations Student Poster Competition Winners!

1st Place - Mallia Volke
Formation of the White River-Missouri River Delta in South Dakota
Opportunities for Carbonwood Forest Regeneration

2nd Place - Cynthia Parthibban
Dewatering the Mitigated Areal: Evaluating Effectiveness of Wetlands for Improved Drainage Water Management

Student poster Competition judge, Erin Cortus, reviewing a poster with a student.

Presentation of current research during concurrent session

Attendees enjoying some snacks during the after noon poster session break.

Dennis Todey is our lunch keynote talking about regulation of the Missouri River Mainstem Reservoir System
The Wet of 2013

Fall of 2013 brought heavy precipitation back to nearly all of South Dakota. Attention was very focused on the blizzard in early October (and rightfully so). But the fall as a whole saw heavier precipitation amounts statewide, which set numerous records and set up some potential issues for the spring.

The early October blizzard has been well documented because of the large scale impact to livestock, infrastructure and because of the total precipitation of the blizzard. Widespread amounts of snow up to 30 inches in the plains and nearly 5 feet in the northern Black Hills caused huge amounts of damage. The additional less reported piece of information was the overall amount of liquid in the snow. Liquid amounts in the storm ranged up to nearly 6 inches.

Total fall precipitation has been more than 5 inches over most of the state and over 8 inches in the northern third of the state (Fig. 1). These totals are more than 150% of average over most of West River to over 300% of average in the far northwest counties. The wetness has also shown a return to wet fall conditions which have been a more frequent occurrence over the last 30 years. Heavy fall precipitation has been a driver in excessively wet fields, growth of wetland and lake areas over much of the eastern part of the state.

<table>
<thead>
<tr>
<th>Precipitation (in)</th>
<th>9/1/2013 – 11/30/2013</th>
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Blizzard and fall precipitation brought annual totals of precipitation to record levels several places in the northwest part of the state. Stations at Lemmon, Bison, Ludlow and Lead all have broken annual precipitation total. Final numbers will have to be calculated at the end of the calendar year. The table below shows some of the records for the year as of mid December

<table>
<thead>
<tr>
<th>2013 Total</th>
<th>Previous Record (Year)</th>
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<tbody>
<tr>
<td>Lemmon</td>
<td>33.70</td>
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<tr>
<td>Lead</td>
<td>49.11</td>
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</tbody>
</table>

The Lead total looks to be the state record for the largest annual precipitation total anywhere in the state in any recorded year. Many 40 inch amounts have been recorded between Lead and Deadwood over the years because of their location in the northern Black Hills. Other very wet years have occurred in various eastern locations.
Outreach and Education Activities

Personnel from the South Dakota Water Resources Institute has presented updates of some of the Institute’s research activities to project stakeholders at the following meetings:

- SD USDA NRCS State Technical Committee Meeting, Pierre, SD 11/13 2013. 50 attendees.
- The Annual Tri-State Drainage Research Forum, Sioux Falls, SD 11/14 2013. 70 attendees.
- The South Dakota Cattlemen’s Convention and Tradeshown, Pierre, SD, 12/11 2013. 25 attendees.
- Booth at the South Dakota Soybean AgOutlook Conference and Tradeshown, Sioux Falls, SD 12/12 2013. 750 attendees.

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Water News features water-related topics, including SDWRI activities. View and subscribe to our newsletter NOW online!

http://www.sdstate.edu/abe/wri/newsletters/index.cfm

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